



# Friends of the Roman Road and Fleam Dyke

**May 2014  
Newsletter 44**

## **Thirteenth Annual General Meeting Wednesday, March 12th, 7.30pm, 2014**

### **Chairman's Report**

Over fifty members attended the Annual General Meeting, which was held in the Six Bells Public House on Fulbourn High Street. The Chairman, Edmund Tanner, welcomed everyone before summarising the achievements of the society during the last year. In March we had 230 names on our membership lists. Since subscriptions cover Household Membership, the number of our actual supporters is considerably higher. However, the more members, the greater our income, and the more money we have for skilled conservation work.

Last summer, there was a sudden need to deal with an eruption of Hemlock on the Roman Road. This cost £700, leaving a hole in the budget. We therefore had a Christmas party at Anstey Hall on 4<sup>th</sup> December, which was attended by seventy five people and a big success.



Thanks to these people and to others who sent donations, we were able to pay Bernard Hunt to complete all the work planned for the winter of 2013 -14. This section runs from Copley Hill, Mile Road, to the footpath to Fulbourn, which is at the end of the photo. The other block of work was done at Mount Farm. See page 7. Here, the first 500 metres were flailed in November thanks to Peter Bennet, Land Manager for Babraham Farms. In March Bernard and his team treated regrowth, cleared and raked up all the way to the Fulbourn foot-path, far more than I had expected to be done for £1,500. A marked reduction in the arisings suggests a welcome loss of fertility.

Almost the whole of the north facing bank, above left, was cleared for the first time in several years by our winter work parties. It is full of Rock-rose and Small Scabious in June and July. On the left verge, near the footpath, the yellow Horseshoe Vetch, and a patch of the Purple Milk Vetch may be in flower now. They resurfaced in the summer of 2011 after our clearance of this section.

Right, Bernard's two regular helpers burning the arisings on a tin sheet in the rough grass area next to a line of beeches. The chalk grassland is long gone. Until the 1950s these trees were part of a hedge which was no longer needed when arable farming took over.



### Chairman's Report (continued)

Last year, in addition to the reprinting of David Barden's monograph on "Violets on the Roman Road and Fleam Dyke", we published Bob Jarman's monograph, "The changed status of diurnal breeding Birds of Prey in Cambridgeshire in the last 50 years", which summarises the remarkable recovery of these beautiful birds.

Six work parties were planned for the winter, and only one was cancelled on a weekend of steady rain. The Chairman thanked everyone who came to help Iain Webb on these mornings and asked those present to spread the word that work parties provide **very good exercise in friendly company** and are an extremely useful part of the maintenance of chalk grassland. You can almost always hear sky larks singing.

However, since 2006 there has been a conflict of theories about the management of these sites, which are important as archaeological monuments, as rights of way and as sanctuaries of wildlife. In recent years the emphasis has shifted towards the clearance of all bushes and trees on the Roman Road 'in order to restore chalk grassland'. This coincides with a new insistence on the part of the County Council that the Roman Road and other byways must be cleared to a full 40ft 'for the public to enjoy'.

There is a basic misunderstanding here. Chalk grassland is an entirely man-made habitat, produced by sheep grazing. Once sheep farming had become uneconomic, scrub began to invade and the result is a different habitat, valuable in itself for the variety of species which depend on it: birds, bees, butterflies and dozens of other insects, bryophytes and lichens. Moreover, if you clear invasive scrub, you do not get chalk grassland, as Peter Grubb will explain. Annual mowing and raking off will not improve the situation. On the Fleam Dyke, an area of thick scrub cleared in 1993, had by 2001 become an open bank almost entirely composed of False Oat Grass; and so it remains, as you can see on Google earth!

For several years now there have been large scale clearances on both sites, followed by furious protests by members of the public, many of whom know a great deal about wildlife conservation. Worse, now that the Friends of the Roman Road and Fleam Dyke have become better known, it has been assumed that we had been involved in the planning of such expensive and destructive activity or indeed had paid for it, neither of which are true. However, the authorities involved have now agreed to prior consultation and a majority decision to be taken by the whole Linear Sites Committee.

### Let's Solve the Traffic Problem on the A1307 by dualling the Roman Road.

Our previous Chairman, Sam Agnew, continues to maintain an interest in what is happening in South Cambridgeshire District and on the Roman Road, so Edmund Tanner invited him to address the meeting. During the rush hours, the A1307 is overloaded with traffic. A half-hour journey at mid-day can take two hours, so Roger Hickford, the new Conservative Councillor for Linton appeared to have struck on the ingenious idea of dualling the Roman Road. A public meeting was to be held in Haverhill on 21st April. If this proposition turned into a serious plan, Sam asked the Friends to express concern in the strongest possible terms. The meeting did not need urging!



One of the three work parties on the north side of the verge south of Copley Hill. Edmund Tanner, Steve Hartley (in yellow) with Christine Newell just visible (in blue) and Alison Guy, a new recruit, are cutting back the scrub regrowth and pulling out bramble suckers where possible. Iain and Richard Fowling are some way behind the camera, brush cutting nearer to Copley Hill. When they have done several hundred metres, everyone rakes up. Iain treats as many as possible of the cut stems with brush killer. With thanks for hard work on other work parties by Helen Chubb, Juliet Ellis, Tim Moore, David Seilly, and David Waterhouse.



### Green Belt Officer's report

Iain Webb summarised the year's conservation work. Despite what seemed like endless bad weather, 5 out of 6 work parties were completed. (Our work parties are now limited to the morning hours, so Iain turns up heroically early, not his words, and brush cuts for a couple of hours. He is sometimes joined by Steve Hartley. This means that there is already hay-raking to be done as soon as the volunteers arrive. JN) This year the work parties have cleared the north verge from Copley Hill to the Fulbourn footpath, brush cutting and pulling a lot of the scrub and brambles. Further work on the Fleam Dyke was done by Bernard Hunt. This was largely paid for by compensation from the Wadlow Wind Farm, with a contribution from the Friends. A great deal of work is done on key areas of the Roman Road and Fleam Dyke by Iain and the Mid-Week Volunteers, who come on six or seven Wednesdays a year.

Iain also showed a summary of his annual bird surveys for the two sites, distinguishing between increases and decreases in common and rarer birds. (See next newsletter)

### Report on Butterfly Transect Results 2012 - Roger Lemon

Turn to page 6

Roger's photograph shows a Dark Green Fritillary nectaring on a Greater Knapweed. The patterns on the upper wings of the Dark Green Fritillary and the Silver Washed Fritillary are very similar. It is the dark green of the under wings that is different. Look for them on the Fleam Dyke south of the A11 in July and on the Roman Road north of Worsted Lodge. They skim over the flowers like Lords of the Universe. The larvae feed on Violets, a suitable diet for royalty.



### Treasurer's Report and Approval of Accounts

Mike Albutt's report was, as always, a model of brevity and clarity. **X** pounds shillings and pence **In**. Y pounds shillings and pence **Out**. Result? Happiness. Mike predicted that Julia would now spend the money, and indeed she did. See page 7. This summary is slightly inaccurate but, to coin a phrase, the details need not concern us here because the final profit of £1,356 on the Anstey Hall party refilled the coffers. An extra tribute is owed to Elfrida, who listening to my description of the belt tightening required by the Hemlock crisis said briskly, "Well then, we had better have an autumn party."

### Election of Committee Members

Last year a new member praised our AGM for the interesting content, the photographs which accompanied all the speeches, and the superb economy of time spent on electing the new committee. Since no one else has yet complained, we followed the same procedure as last year, and the committee was re-elected *nem.con.*, an economical phrase even by Latin standards.

However, since then **Nigel Copeman has decided to retire from the committee**. He has moved from Fulbourn to West Wrating, but he still does a great deal for the Fulbourn Nature Reserve where he is the Voluntary Warden and unpaid stockman, looking expertly after the cattle which are essential to good management of the site. The Chairman and Committee wish to thank him for his help on a variety of aspects of our work. Nigel helped with the grant application and work on the Roman Road Fleam Dyke walk booklet. With Iain and Roger he installed the information boards and also the dog bins on the Roman Road. His background in business was helpful to the committee, not least for his efficiency in reading the Minutes carefully, and tactfully pointing out the latest of my many mistakes!

## **“You can’t clear scrub and get chalk grassland unless ....” Forty years experience on the Devil’s Ditch**

The guest speaker this year was our Patron, Peter Grubb, Emeritus Professor of Investigative Plant Ecology, at the University of Cambridge. I need to preface this report with three apologies. One for the very unscientific title I chose; two for giving Peter the mission impossible of condensing 40 years of scientific work into 45 minutes; and the third for this very inadequate summary of so much complex and detailed experimental data.

In 2006, the then Green Belt Project officer and an officer from Natural England in Peterborough agreed on a plan to clear the best part of a kilometre of scrub from the Roman Road south of Worsted Lodge. This caused an outburst of protest at the 2006 AGM during which Peter Grubb commented on the apparent ignorance of the research that had been published about the clearance on the Devil’s Ditch in the 1970s. Dr Margaret Stanier published a summary of this research in Nature in Cambridgeshire, 1993. A great deal of work has been done on this subject and is available in other more specialist journals.

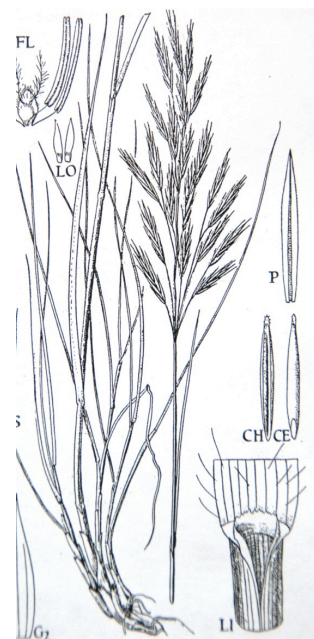
In the late sixties there was increasing concern at the loss of chalk grassland flora and fauna on the Devil’s Ditch. (This is the name given in the oldest maps and insisted on by John Clarke, whose farm included a section of the great earthwork. His father had bought the section of the disused railway line that runs through his land, and cleared the banks in the traditional way.) The Devil’s Ditch Management Committee of CAMBIENT, the Cambridge and Ely Naturalist’s Trust was set up in 1970, and in February 1970 and February 1971 volunteers from the Conservation Corps cleared a section of hawthorn scrub all the way down to and across the fosse, in the hope that chalk grassland species would invade and become dominant. Instead, the dominant invaders were highly nutrient-demanding ‘weeds’. In 1972 Peter Grubb took a group of undergraduates to sample the site more precisely using quadrat studies of the cleared areas.

The result showed that grasses and broad-leaved herbs (flowers) of ‘good chalk grassland’ were totally absent from areas cleared of scrub. In areas of cleared chalk grassland there were 2 examples of ‘weedy’ broad-leaved herbs. In areas cleared of scrub there were 21 ‘weeds’. The cleared chalk grassland quadrats contained 2 invading shrubs. The cleared scrub areas contained 5 examples of scrub regrowth.

Quadrat studies of the presence or absence of key chalk grassland species, and the presence or abundance of nutrient demanding ‘weedy’ species showed parallel results. The total of two good chalk grassland species were: Upright Brome, *Bromus erectus*, 96; Common Rockrose, *Helianthemum nummularium*, 56. In cleared areas of good grassland, nutrient-demanding weedy herbs appeared in low numbers: Cleavers or Goose-grass, *Galium aparine*, 7 and Spiny Sowthistle, *Sonchus asper*, 7. The areas of cleared scrub the weedy herbs were abundant: Cleavers, 96; Spiny Sowthistle, 93.

Subsequent studies by Barbara Key, Nature in Cambridgeshire 1975, showed by bioassays, various experiments and chemical analyses that soil under scrub was much richer than soil under old chalk grassland, and that the availability of Phosphorus was at least as important as the availability of Nitrogen.

Upright Brome, *Bromus erectus*, now renamed *Bromopsis Erecta*,  
Wood engraving by W. H. Fitch, 1865





A Malawian research student, Anganile Mwalukomo, did various bioassays comparing soils under forest, scrub and grass at sites scattered across the Cambridgeshire chalk, the Chilterns, North and South Downs. Always the shrub soils were the most fertile. The forest soils were variable but mostly intermediate between scrub and grassland soils. The fact that soils under shrub and forest are so fertile is the reason why primitive people allowed forests to grow up to restore the fertility of meadow soils. Very sadly, Anganile died on his return to Africa, and his dissertation describing this important work has yet to be published. Work by Bill Lee from New Zealand showed that this is true of soil under Dogwood in the Chilterns or Junipers in central Germany.

Peter Grubb's earlier studies of the way Heather and Gorse acidify the soil they invade, led to his research into the way that Upright Brome can reduce fertility in ex-scrub soil down to the levels of chalk grassland into which chalk loving plants will move. The chemistry behind this was explained in work by Barbara Key. Further work by Robert Pakeman showed that the full effect became clear only after 7 years. In addition to these detailed research projects, work was needed on the conditions required by the different plants which it is hoped to re-establish on lost chalk grassland sites. Many can maintain populations indefinitely in continuous turf, provided it is not too tall, (just how tall depends on the species). Some require tiny gaps in the turf in order to become established and reproduce. Some plants are utterly dependent on their micorrhiza. Finally, and unfortunately, it is all too obvious that faster growing species will still invade and choke out the target flora.

In the late nineties, the Heritage Lottery Fund and local bodies awarded £400,000 to the Devil's Ditch Restoration Project 2001 – 2006. (The Roman Road and the Fleam Dyke were given nothing, as the Lottery Office thought there was little local interest in these sites!) This grant allowed for a full time project worker, James Fisher, and fencing for future sheep grazing. Scrub was to be cleared, while still leaving enough scrub for birds and insects, and chalk grassland reinstated. This time the restoration work was based on the facts established by Professor Grubb at the Plant Sciences Department. The Management Committee of the project decided on three essentials:

1. Seed of Upright Brome was sown after clearance, despite the recommendations of 'experts' that this would be unnecessary.
2. Sheep's Fescue (*Festuca ovina*) was sown as well, because the seed is much smaller and rests on steep slopes and steep micro-sites.
3. The seed was sprayed (hydro-seeded) on much larger areas than those cleared earlier.

Where Upright Brome or Sheep's Fescue were not established, annuals and biennials gradually gave way to roadside grasses, especially False Oats. Few 'good' chalk grassland species became established. The next set of problems are to do with management of the site: fly-mowing is now seen as too dangerous on such very steep banks, but even when a grazier has been found to bring his flock to such a steep site and supervise it, there remain the problems of over-grazing and excessive dunging on the top of the bank, where the flowers are best. I lack the space and competence to summarise the methods by which the success of these methods were measured, but I understand that last summer the restored grassland on the Devil's Ditch looked wonderful. JN



Mutlow Hill, May 2013, cleared of clematis and seeded with *Bromus erectus*. Mutlow Hill was cleared in the early 1990s, and maintained to a certain extent by mowing, but the native clematis, Old Man's Beard, dominated this area and the mound itself. See page 8 for this area in May 2014.

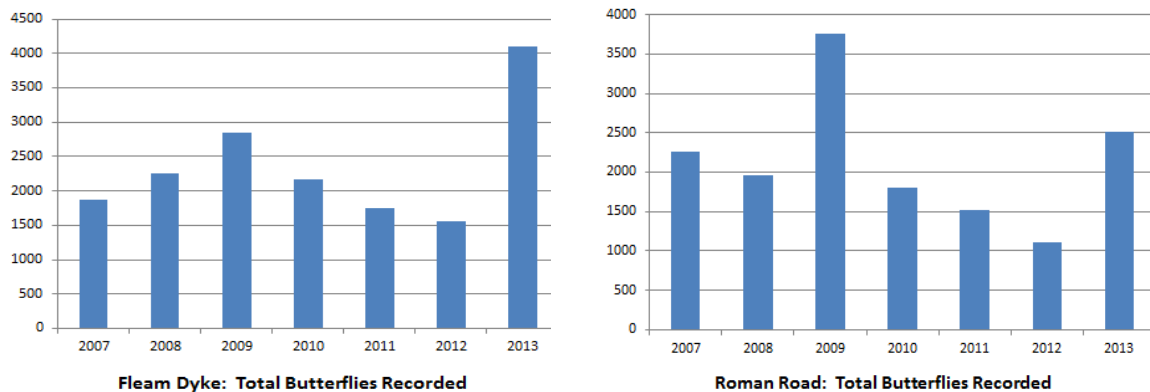
The taller plants in the rear are Garlic Mustard and Common Gromwell. The latter has spread steadily from the Fulbourn Nature Reserve to the 2003 cleared areas on the dyke and from there to a temporary take over on Mutlow Hill.

## Butterfly Transect Data, 2013 update

By Roger Lemon

The transect programme, conducted as part of Butterfly Conservation's Monitoring Scheme, has now been completed over seven seasons on both Fleam Dyke and the Roman Road. Weekly butterfly counts are made within a defined area between early April and the end of September. On Fleam Dyke we cover a length of 2.25km between the pumping station and Bedford Gap. On the Roman Road, the transect is 3.225km long between Worsted Lodge and the golf course. A total of 27 species has been recorded on Fleam Dyke and 26 species on the Roman Road. The only difference in the species lists is the Green Hairstreak, which has been recorded only on Fleam Dyke. Results are presented in the form of an index for each species, which is essentially the total number recorded, with some adjustments, particularly to include a calculated estimate for any weeks missed because of poor weather or other circumstances.

The excellent summer of 2013 produced the largest butterfly totals to date on Fleam Dyke and the largest since 2009 on the Roman Road, after three years of steady decline. This can be seen on the following charts.



The difference on Fleam Dyke is largely due to a phenomenal increase in numbers of Chalkhill Blues, from an index of 3 in 2007 to nearly 1600 in 2013. This increase can be attributed largely to habitat management but also reflects an upturn in the fortunes of this species nationally. Chalkhill Blues occur on the Roman Road but in much smaller numbers than on Fleam Dyke.

A brief summary of the trends observed with other selected species is as follows.

One of our habitat specialists is the Green Hairstreak, which can be seen during springtime in relatively small numbers on Fleam Dyke. It maintains a steady population, with 2013 being an average year.

After many years of absence, the Dark Green Fritillary was recorded again in 2010 on Fleam Dyke and has steadily increased in numbers each year. This species never occurs in high population densities but we are confident that it has now re-established itself as a breeding population. A small number has also been recorded on the Roman Road.

The Common Blue is a species which showed a rapid decline from a peak in 2010 to very small numbers in 2012 but showed a remarkable recovery in 2013. The reasons for these changes in population are not really known.

The Small Heath has done particularly well on Fleam Dyke with increases in numbers over the past two years but occurs only in very small numbers on the Roman Road.

The vanessids have had mixed fortunes on our two sites. The Red Admiral was the only species to suffer a substantial decline on both sites in 2013, whereas the Peacock and Small Tortoiseshell showed significant recoveries, after worrying declines in the previous three years.

## Summer Party

We are very grateful to **Tony Juniper** for finding time to come and talk about his latest book, which I certainly found inspiring and encouraging. The sub-title is 'How money really does grow on trees'! There will be copies of his book available for sale. To my regret, Hugette Chatterton's accompanist was not free to play for her, but she recommended **Amanda Hall**, who is well known in Cambridge and East Anglia as the lead singer in "Little Black Dress Duo", a classic cabaret act performed with warmth, wit and style, and several languages.

## The Friends of the Roman Road and Fleam Dyke

**Summer Party on Saturday 28th June 2014, 6.00 pm – 9.00 pm**  
at the Cambridge Masonic Hall, Bateman Street, CB2 1NA

### "Nature Conservation: It's the economy stupid!"

**Tony Juniper** will explain the title of his latest book:

**"What has Nature Ever Done for Us?"**

### One Little Black Dress

**Amanda Hall** with her guitar, and songs for a summer evening.

**Tickets, to include one glass of sparkling wine,**  
**£12 50 each, £20 for a couple**

**Available from Elfrida Heath,**  
**69 Humberstone Road, Cambridge, CB4 1JD**

**Please send s.a.e. tel: 01223 562360**  
**elfrida.heath@ntlworld.com**

[www.frrfd.org.uk](http://www.frrfd.org.uk)



Or, you can pay cash and collect tickets from Julia Napier,  
30a Hinton Avenue, Cambridge, CB1 7AS 01223 213152

## Work paid for by the Friends in 2014.

The stretch of the Roman Road from Copley Hill to the Fulbourn footpath, shown on page 1, was cleared in the spring, costing £1,300. Bernard Hunt commented that there appeared to be a significant reduction in fertility. Next year we could try to leave a mosaic of cleared and uncleared turf to provide habitat for a wider variety of invertebrates. The empty nest of a Harvest Mouse suggests that someone liked being there. When planning this clearance, we asked English Nature for permission to buy seed of Upright Brome and Sheep's Fescue to fill the empty spaces and reduce fertility as well. This was refused. Luckily it was possible to collect Upright Brome seed from the remnant of agger opposite the golf course, and a certain amount of Sheep's Fescue remains nearer the track itself and survives under light scrub.

At Mount Farm, opposite to Worsted Lodge, a long stretch of clematis and scrub has been cleared, and raked off with treatment of cut stems. This work also cost £1,500, and again Bernard did far more than expected. The purpose here was to stop its relentless spread along the hedge and up the Roman Road. The soil is very enriched and as yet we cannot seed it with Upright Brome and Sheep's Fescue, as we would have wished. However, the area should be easier to manage in future. St John's Wort, Common Knapweed, Wild Basil, White Campion are present, and there should be some slow transfer of nearby grassland species along with the 'predicted weeds'.

There should have been pictures here as well as words, but one false step, and my photos vanished into that space where all lost texts go! They were not very exciting. It is hard to illustrate an absence of Hemlock and Old Man's Beard turning up its toes.





**Mutlow Hill, May 2014.** The Friends paid for the mass of Clematis to be cleared and treated by Bernard Hunt in 2013. It was then reseeded with *Bromus erectus* from Therfield Heath. This year the seedlings have become established and the site could be described as grassland of a rough sort. On the east side, right, there is a lot of Common Gromwell and Garlic Mustard, with Creeping and other thistles, of course, but on the west there is a steady spread of Sheep's Fescue and Lady's Bedstraw and a scattering of the lovely blue form of Milkwort. There is a lot of Mignonette on the sunny slope of the west side, left, but it will mostly disappear as the turf becomes established. Also on the west side, just to the left of the shadow of the big beech tree, there is a small area of true chalk grassland flowers: a Rock-rose in full flower, several plants of Horseshoe Vetch, one Kidney Vetch and some Quaking grass. They are a remnant of the former flora of Mutlow Hill, kept open by visitors and picnickers such as my friends and I in the 1970s.

## STOP PRESS

**The Friends of the Roman Road and Fleam Dyke are one of the three Cambridge Waitrose Charities in June.** When you shop at Waitrose this month, don't forget to take your green tiddly wink and put it in our box. The charity officer told me that the other two charities are the Magog Trust and Guide Dogs for the Blind. I said, "Oh dear! They are sure to be much more popular than we are," to which she replied, "**You can always ask if you may take a second green counter, as many people don't bother with them.**" So, in a version of the classic "Vote Early and Vote Often", **PLEASE DO LOTS OF SHOPPING** at Waitrose this month! We need to reprint the Roman Road leaflet.

With our thanks to **Waitrose** Cambridge, and more permanently to Mark and Adam Bishop at **Copy Studio**, for help with newsletters and posters, and for being very patient on Friday afternoons late! 01223 211554 [action@copystudio.biz](mailto:action@copystudio.biz)

Best wishes to all, Julia Napier, June 1<sup>st</sup> 2014

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